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EXPERIMENTS

PROVING

VACCIOLATION

TO BE A

PERMANENT SECURITY

AGAINST

SMALL POX.



EXPERIMENTS
PROVING
VACCIOLATION,
OR,
COW POX INOCULATION,
TO BE A
PERMANENT SECURITY
AGAINST
SMALL POX:
WITH
FACTS AND REMARKS.

BY SAMUEL HILL, *Surgeon,*
TOWN OF PORTSEA,
AND SURGEON IN THE ROYAL NAVY.

Ne dubita, nam vera vides.

VIRG. ÆN.

PORTSEA:

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TO THE
PRESIDENT AND MEMBERS
OF THE
ROYAL JENNERIAN SOCIETY.

GENTLEMEN,

DEEPLY impressed as my mind is with the vast importance of Vaccination, and staggered as the Public mind has of late been with the idea of its affording temporary security only against Small Pox; every attempt, however feeble, to establish the truth, must be laudable: I have made some Experiments, the result of which I hasten to lay before the Public: and as I should, most assuredly, have addressed the following pages to the ROYAL JENNERIAN SOCIETY, if they had made against the new Practice; so do I think myself equally bound to offer, and you Gentlemen equally entitled to receive, a full communication of every circumstance which has occurred in its favour.

*With becoming deference then, Gentlemen, do I
request you to accept the following pages, as a token
of that perfect veneration and esteem with which
I have the honour to be,*

GENTLEMEN,

Your most obedient,

And very humble servant,

SAMUEL HILL.

Queen-Street, Portsea,
October 10th, 1804.



PREFACE.

IT was not originally my intention to lay the following Experiments before the Public ; two reasons, however, now induce me to make them known :

Firstly, A report has been spread with considerable industry, that ‘ I have changed my opinion of the prophylactic power of Vacciolation against Small Pox :’---and Secondly, The charge brought against the Medical Gentlemen of Portsea and its Vicinity, of ‘ being hostile to Vacciolation.’

CONTENTS.



	<i>Page</i>
INTRODUCTION	1
EXPERIMENT FIRST; MR. CAPEL'S CHILD	19
SOURCE OF VACCILOUS MATTER	20
EXPERIMENT SECOND; MR. GIBBS'S CHILD	22
——— THIRD; MR. GAIN'S DITTO	24
——— FOURTH; MR. HENRY HILL'S DITTO ..	26
——— FIFTH; MRS. CANES' DITTO	28
——— SIXTH AND SEVENTH; MR. POWELL'S CHILDREN	30
LETTER FROM MR. POWELL	31
DITTO FROM MR. HUNTER	32
EXPERIMENTS EIGHTH AND NINTH; MR. GREETHAM'S AND MR. MARTIN'S CHILDREN	33
SOURCE OF VARIOLOUS MATTER USED IN THE FIRST, SECOND, THIRD, FOURTH, FIFTH, EIGHTH AND NINTH EXPERIMENTS	21
EXPERIMENT TENTH, MR. CASE'S CHILD	37
SOURCE OF VARIOLOUS MATTER USED FOR DITTO ..	38
VARIOLATION AFTER VACCIOLATION DISAPPROVED OF	40
EARLY VACCIOLATION RECOMMENDED	46
OPPOSITION TO THE PRACTICE OF VACCIOLATION BY THE PRACTITIONERS IN THESE TOWNS DENIED ..	43
PUBLIC DISPENSATORY OR INFIRMARY RECOM- MENDED	44

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INTRODUCTION.



VACCIOLATION has been found to be, beyond dispute, a permanent prophylactic against variolous infection; the immense mass of evidence, collected in England alone, and laid before a Committee of the House of Commons, by the first Medical Characters and other Men of Science, in the United Kingdom, and upon which that Committee decided, is sufficient to stamp its value without the aid of foreign testimonies *. It may however be remarked, that it is now practised in most parts of the known world, with an astonishing success: in short in all the quarters of the globe, respectable medical men as well as other philanthropists, are humanely ex-

* Those who wish to be informed of the state of Vaccination abroad, and are not in the way of obtaining other intelligence on the subject, may satisfy themselves, by reading the Monthly Medical and Physical Journals; the Monthly Reviews; Mr. Ring's and the Rev. Mr. Griffin's Pamphlets.

tending its benefits to thousands; many of whom might otherwise fall victims to the greatest enemy of the human race, the Small Pox.

I commenced the new practice December 5th, 1800, and from that to the present period have vacciolated two hundred and thirty, not one of which number has ever taken the casual Small Pox, though exposed to its effluvia in all possible ways; many of them having been in contact repeatedly, and even put into the same bed with those who had the confluent Small Pox so bad as not to survive that dreadful and truly loathsome disease.—Several respectable families in these towns having substituted vacciolation for variolation, at my particular desire, became seriously alarmed when they heard it reported, that I *now thought the former only temporary security against Small Pox*, and reiterated applications were made to me by them, to know if such report was true; I therefore conceived it to be a duty I owed to them as well as to myself, publicly to avow the

opinion I entertained, and which they had heard me so frequently give in private; and to assure them, that, if any alteration has taken place in my sentiments respecting that great blessing, it is, that from the success with which I have practised Vaccination, and the result of the experiments hereafter recited, I am more firmly fixed in its favour than ever.

It was always my intention since I entered into the new practice, to subject at a proper time, some of the children I had vacciolated to the test of variolation; and this idea met the wishes of several parents: I therefore selected for the purpose eighteen who had been vacciolated by me, between three and four years back: but on enquiry I found ten of these only remained within the circle of my practice: of the remaining eight, three had gone to London, one to Chatham, one to Plymouth, one had paid the debt of nature, one was gone to school, at a great distance from hence, and the friends of one * declined the

* Mr. PINHORN, Portsea.

experiment from a firm conviction of the permanent security vacciolation afforded, against small pox. To extreme care in the choice of vacciolous matter and particularity in vacciolation, with an attentive observance of the progress of the vesicle, areola, &c. I attribute the success I have had: at all times when in my power, I had the subjects to be vacciolated carried to the houses where those resided, from whom I was to take vacciolous matter; and this always on the eighth day or early on the ninth from vacciolation; I do not recollect ever using matter taken before the former period or after the latter.

I did not know until I perused Mr. RING's Pamphlet, that "vacciolation was unpopular at Portsmouth *, and not much cultivated there:" on the contrary, I always thought it had many friends among the members of the Medical Profession in these towns and its neighbourhood; and although I do not know

* See the Introduction to Mr. RING's Answer to Mr. GOLDSON's Cases.

the sentiments of all, yet I am persuaded, that some have been its zealous supporters ever since its first introduction here in 1800, and I feel myself peculiarly happy, in being able to say, I am one of that number.

Considering the errors which from inexperience must necessarily attend every new practice, it could not be matter of wonder if some faults * were committed at the commencement of the inoculation of the Cow Pox; we could not all at once become perfect vacciolators, more especially as the rules by which we were guided, were frequently so contradictory, that it was much more surprising we should have began the new practice so successfully as we did; add to this, prejudices of various kinds had no small share in retarding vacciolation: to mention the whole would be perhaps an endless task: but those which most affected the minds of the public, within the circle of my acquaintance and practice at

* See Mr. RING'S Introduction to his Answer to Mr. GOLDSON'S CASES.

least, were those arising from religion; from the fear that it only afforded a temporary † security against Small Pox, and from an idea, that by Vaccination the diseases of the brute creation might be introduced into the human species. To the first, those of a religious ‡ nature, the usual arguments were opposed: to the se-

† I find in a Book published by Mr. DUNNING of Plymouth Dock, in 1800, pages 11 and 12, that this prejudice existed in his neighbourhood, at that time; and I will take the liberty of extracting the passage from those pages—He says, “The hydra of opposition in this neighbourhood, I have infinite satisfaction in saying, has within these few weeks been nearly driven off the field, and is become at present, an almost headless corpse. It must be allowed that she has maintained the combat with an obstinacy and policy, which, in a better cause, would have been as creditable, as it is now unworthy. She retires, indeed, with a struggling reluctance, and, even in her retreat, has broken new ground, in hopes perhaps to gain time and breathe a little; or as a forlorn dernier resort, and entrenched herself seemingly with the most consummate art, behind the most extraordinary, but, I will venture to assert equally as untenable a hold as any that has hitherto been resorted to—*The Protection against the Small Pox is to be of a definite duration only, of some five, six, or seven years.*—While they were about it, why not have said, with equal ingenuity and acumen, that the Small Pox will certainly break out some hundred years hence, in the graves of all those who had been the subjects of Cow Pox.”

‡ I would recommend to those who have religious objections against Vaccination, a perusal of an Address from a Country Curate to his Parishioners, on the subject of the Cow Pox or Vaccine Inoculation—by THOMAS ALSTON WARREN, B. D. Fellow of Saint John's College, Oxford, and Curate of Flansled and Kensworth, Hertfordshire.

cond, that of its affording temporary security only, I opposed this single argument, which with very few exceptions, satisfied my friends, viz. that in the course of my own practice, I never had met with a solitary instance of Small Pox taking place after perfect Vaccination, either casually or by inoculation; and that Medical Men of the greatest celebrity in the metropolis of this kingdom and other places who had vaccinated thousands, were through the medium of periodical publications, daily attesting the same thing §. The prejudice arising from fear of introducing the diseases of the brute creation into the human species, has, *until lately*, given me more trouble to remove, than all the others together, though the most absurd object of the whole. It is well known that animals are liable to fewer diseases than the human species; the former having none but what are natu-

§ Mr. CREIGHTON's (of Dublin) Experiments lately made, prove the permanent prophylactic power of Vaccination; and the Medical Gentlemen of Edinburgh are of opinion, that it is, unphilosophical to suppose it can afford a limited security only.

ral to them, whilst the latter, in addition to those, bring many on themselves by their own misconduct; such as those arising from intemperance both in eating and drinking; the quality as well as quantity of food taken into the stomach; those arising from nocturnal riot and debauchery, and many others, which to point out would by far take up too much of my time. Quadrupeds, it has been observed by writers of celebrity are ferocious or otherwise according to their food. Those of a savage nature living on animal, whilst the placid live entirely on vegetable diet. Of the latter class, is the cow, the most placid, and I am of opinion, the most healthy too, of all animals: her food is sweet, simple and wholesome, consisting of vegetables chiefly in a recent state *. Her milk forms a great proportion of the food of infants, and of the sick of all ages, in hospitals, work-houses, and pri-

* Except in hard winters, when they are usually, I believe, fed on hay or grains.

vate families ; and her flesh furnishes a large proportion of the food of man.*

THE following beautiful lines are here very applicable :—

La Nature a voulu fans doute mere sage,
Entre tous fes enfans faire un égal partage,
Aux brutes n'accorder qu'un instincte limité,
Mais au lieu de l'Esprit leur donner la fanté.

Epitre à M. de Montulé.

UNDER the before stated disadvantages then has vacciolation now arrived at perfection here; the word has escaped me, and I will not recal it; it has certainly, in my practice, proved perfect, or why should not those whom I have vacciolated, be susceptible of Small Pox? I have asked the same question frequently, and have been answered, that probably, at a future period, of perhaps three years subsequent to vacciolation, they may become so. The following experiments prove them equally insusceptible after that time; and I must again

LIVING in a Cow-house, or near one, has been of late recommended, by a most ingenious and celebrated Author, for cure of Consumption; and, I believe, with good effect.

repeat this question ; Why do not some of those children, whom I have vacciolated since December, 1800, and October, 1804, take the casual (or those who have been put to the test of variolation, the inoculated) Small Pox ? I would fain hope, that this successful practice of vacciolation, will prove, that, “ if it has not been popular here,” it has at least been cultivated. †

BEFORE I proceed to relate the experiments, I will beg leave to mention some unfortunate cases of Small Pox, which I have witnessed in the course of my practice.—In 1797, I was desired to visit a female child, in St. James’s-Street, Portsea, who had the casual Small Pox of the confluent kind, very full ; and she was altogether so ill as to allow me to pronounce a very doubtful prognostic. The Parents informed me that there was a pustule on the left eye, on which account *only*, they wished my advice. On examination, the seventh day from the

† SEE Mr. Ring’s Introduction, &c.

first appearance of the eruption, I discovered a pustule, fully matured, on the pupil: I told them, that if the child escaped with life, she would certainly lose the eye; as I conceived it had (the pupil) already suppurated: they said, that if I could not promise to preserve the sight, I need not take the trouble of repeating my visit; but, in the course of eight hours afterwards, they again sent for me in haste, and shewed me the remains of the pupil, on a piece of paper, which had been forced out of the orbit in a fit of coughing. This child escaped with life: the tunica albuginea, seemed, after a time, to fill up the vacuum occasioned by the loss of the pupil and iris, which last had also suppurated: the child had a most ghastly appearance.

I was desired to visit a child of Mr. Palmer, of Hanover-street, Portsea, in 1799, aged ten years: I found her with symptoms of fever, which ran so high, and the head was so much affected, that I apprehended she would not live till morning, if she was not relieved by an

eruption. Some blood was taken from the arm, and the bowels opened by an aperient cathartic, and she was put into the warm bath; the day after, July 7th, eruptions appeared, which soon proved to be Small Pox. The feverish symptoms now abated, and the head, comparatively speaking, was well. About two hundred pustules matured, three or four of which came on the pupil of the left eye, which occasioned the loss of it.

THE daughter of Mr. Harfield, then about eighteen months old, was taken ill in the summer of 1803, with feverish symptoms, which proved to be Small Pox. I was asked to see her on the eighth day of the eruption; a pustule appeared on one of the eyes: the child had the disease very light, but had the appearance of violent ophthalmia. Everything was done to moderate the local inflammation, which was treated the same as if the Small Pox had been out of the question; but without obtaining the desired end: the pupil suppurated, and was discharged in the shape of

pus. This poor child is now living, and whenever I see her, I lament that she had not been previously vacciolated.

I was desired to see the infant daughter of Mr. Bruce, Half-way-houses, Portsea, the seventh day after the Small pox appeared. She had been inoculated by a woman, and over the whole surface of the skin I could not reckon more than thirty pustules; and very unfortunately one of those came on the pupil of one of the eyes; the loss of the sight of which was the consequence. To these unfortunate cases a long catalogue may be added, exclusively of those who have died of the Small Pox. In the course of my diurnal visits to different parts of the Island of Portsea, I frequently meet some of the children who are subjects of the preceding cases, which never fail to bring to my mind the unbounded goodness of the Deity, in furnishing an antidote to this pestilential disease, through the great and truly philanthropic Doctor Jenner. Contrasting the mildest state of variolation, or Small Pox inocula-

tion, with vacciolation, there is a great balance of good, in favour of the latter, which neither occasions death or loss of sight ; nor does it produce schrophula, or any other complaint likely to render life unpleasant : and if I here allow, for argument's sake, for on no other principle can I allow it, that the cases lately brought forward as failures, are really so ; considering the little inconvenience which attended the subjects of them, and the few eruptions which were produced, still it would not make against the general practice of vacciolation : for I beg leave to ask—where is the fond parent, who would not with ecstatic delight court vacciolation, for his or her, perhaps, only child, to ensure so mild a kind of Small Pox, and thereby escape all the horrors and deformities of those children, whose cases I have just related ? I would add, that in my opinion, if all the Cow Pock cases, in these towns, from 1800 to the present time, were failures, they could not make much against the new practice—it would,

comparing these towns, to all others where it has been crowned with such astonishing success, appear but as a single drop of water compared with the ocean, or, as an atom of matter to the globe itself.

THE ravages of the small pox are elegantly and most feelingly described in the *Pædotrophia* of Scevole de St. Marthe; translated from the Latin by Dr. Tytler. The book probably is not in every body's possession, who may do me the honour to read this pamphlet: this consideration I hope will be esteemed a sufficient apology for my extracting some passages from that poem:

Page 150.

But let the Muse describe the pustules dire,
That, breaking out from some contagious fire
Rise o'er the skin, and outward bend their course
Compell'd by raging fever's rapid force,
The face, the joints, the snowy limbs deform,
And leave long tokens of th' internal storm;
If, o'er the body rais'd, distinct their name,
They swell, and shine, like spires of ruddy flame;
Or confluent o'er the spotting infant flow,
From gelid humour, that moves dull and slow,
Whence they, suppress'd, rise not above the skin
But make the fever more to rage within;

Page 151.

But pustules flat, or tall, that first were red,
In proper time, when o'er the body spread,
Turn white, mature, subside, and last appear
Compacted crusts, that to the skin adhere.

Page 154.

Nor are there wanting of the skilful tribe,
That to some other cause these ills ascribe:
But, whencesoever spring the dreadful strife,
It oft' proves fatal to an infant's life.

Page 155.

Poor helpless babe! how will you now lament!
How to the pitying nurse your sorrows vent!
Demanding aid, with all the rage of grief,
When she, as helpless, can bring no relief!
Nor milk, nor other food, assuage your woes,
Nor can your painful limbs enjoy repose.
Behold her long, and miserably bend
To you she lov'd, to you she us'd to tend,
Hang o'er your cradle, with dejected eyes,
And beat her breast, that calms not now your cries.
Those cheeks so beauteous, and almost divine,
Where red and white alternate wont to shine;
That mouth so round, so pleasing to the view,
Those lips she kiss'd, to which so oft she grew,
She sees deform'd with gore, with crusts obscene,
With fluid ulcers, and with sores unclean.
To you, to her, appears no more redress,
Nor finds she words her sorrows to express.
But 'tis no time to waste in vain laments;
Some other means must soothe your sad complaints,

Some proper treatment the contagion kill,
And stop the progress of the mortal ill.

Page 157.

But should the fever which you thus engage,
Resistless burn, with unextinguish'd rage;
Should all your efforts fail to ease his pains
To kill the poison warring in his veins,
You must submit, for wise Physicians send,
Nor on each idle recipe depend,
That travelling Quacks advise, or women give;
For, tho' they chief the mother's mind deceive,
The common error oft infects us all,
And here the learn'd themselves are apt to fall,
By heat attempting, and by ill tim'd care,
To force the poison to the ambient air.
In this disease the greatest hazards lie
In that sad treatment, which too many try,
When they, by violence, bring from within
A load of pustules on th' inflaming skin,

Page 158.

That, with unnumber'd wounds, deform the face,
And ev'ry issue of the soul opprefs.
By this (oh! sad remembrance, fatal tale!)
To me two beauteous infants lately fell:
Four Summers o'er my lovely Charles had run,
And thrice Diana saw the annual fun,
But, ere the next, from me, and from my spouse,
Were snatch'd the double honours of our house.
Ye mighty Gods! if love for man remain,
And all a Poet's prayers be not in vain,
Save the delightful pledges of our bed,
That yet survive, from these dire ills that shed

Deſtruction round; avert th' infectious woe,
Nor wound our peace by a ſucceeding blow.

Page 161.

When firſt the puſtules, mark'd by florid red,
Begin to riſe, and here and there to ſpread;
Then muſt you, with attentive mind, beware,
Leſt they, that oft o'ercome our utmoſt care,
Infeſt the tender infant's noſtrils, eyes,
His lungs, his throat, and all that inward lies.
For in theſe parts the greateſt danger breeds,
Whence loſs of ſight, and death too oft proceeds.

Page 165.

And when th' eruption, now mature, is ſeen
To ſwell the purple ſkin, with gore obſcene;
When high the heavy ſcented puſtules ſhoot,
And, breaking, ev'ry joint and limb pollute;

Page 166.

Behold each puſtule turn a running ſore,
And, by degrees, ejeſt the ripen'd gore.

Page 168.

But laſt (nor here your utmoſt care diſdain)
Leſt, on his face, unſeemly ſcars remain.

Page 169.

Such is our care to keep fair beauty's charms,
And much they merit to be ſav'd from harms;
For who, but thoſe produc'd by rocks, or ſtorm,
Refuſe t' admire a bright angelic form?

EXPERIMENT FIRST.

I Have before observed that I commenced the practice of Vaccination December 5th, 1800. It was on the infant daughter of Mr. CAPEL, Solicitor, High-street, Portsmouth, then about five months old. Mr. CAPEL had requested me in the preceding October to vaccinate her, but at that time, I did not know how to procure genuine matter; neither did I know any thing respecting the practice: these circumstances I thought it but fair and candid to acquaint him of: his mind was however already made up, and on the above-mentioned date, he sent me a small parcel sealed, requesting my attendance to vaccinate his child, as soon as I could make it convenient: I returned the parcel unopened and called on him in the course of an hour afterwards; opened the parcel in his presence; it contained Cow Pock matter, sent from London the

day before. * I vacciolated the child, and with the help of a small book by Aikin on Cow Pock Inoculation, containing an engraving shewing the daily progress and appearance of the vesicle, she was conducted through it—the vesicle appearing from day to day to correspond with the engraving. The areola formed; as I have since observed it does in other subjects, and it was near the end of the fifth week before the eschar fell off. The child was observed to be a little heavy on the sixth day for about one hour. The mark is now to be seen on the arm, being round concave, with several little indentations on the concave part. On the eighth day from vacciolation I took matter from this child by making several small punctures into the vesicle with a clean lancet, and after waiting two or three minutes, I applied the flat surface of a piece of glass, prepared for the purpose, to the vesicle, and when sufficiently charged, a

* From the Vaccine Pock Institution.

corresponding piece was put on it, and secured by tying both pieces together. This being the source from which the matter used by me all the year 1801 was derived, I have been more particular for an obvious reason in this recital than otherwise might have been deemed necessary.

July 29th, 1804. With variolous matter taken this day, (the 9th from the eruption) from Mr. Musson's child, No. 19, Unicorn-street, I variolated this child.—30th, There was an appearance of inflammation.—31st, It was more increased, and the puncture was elevated above the surface of the skin. August 1st, the inflammation was as broad as a sixpence, and the puncture more elevated than on the preceding day.—2d, The puncture contains a little lymph of a yellowish tinge, the inflammatory circle is not so red as yesterday.—3d, Appearances as yesterday.—4th, The puncture is of a brownish colour; forming a small scab, the red circle round it now but just perceptible.—5th, The puncture appears

to be drying away, the adjacent parts now of their natural colour.—6th, The puncture has a very small scab on its centre, which remained on the 7th, 8th, and 9th, after which it was no longer to be seen, and only a little hardness remained on the part: there was no constitutional affection whatever, the child played about as usual; her diet was not changed, and not the smallest inconvenience occurred.



EXPERIMENT SECOND.

ON the 10th of May, 1801, with matter taken from Mr. CHARLES GREETHAM's child, (who had been vacciolated, with matter taken from Mr. CAPEL's child) I vacciolated the son of Mr. GIBBS, merchant, of Portsea, the progress of the vesicle was regular, and the areola took place at the usual time, the scabbing process followed, and it was near thirty days from vacciolation when the scab fell off, leaving the usual mark: I have no doubt, but, perfect vacciolation took place. This child was

also on the 29th July, 1804, subjected to variolous inoculation with matter from the child in Unicorn-street.—30th, This child's arm was rather more inflamed than the child's in the preceding Experiment was, the day after variolation.—31st, There appeared a red circle round the puncture, as large as a sixpence, the puncture appearing elevated. August 1st, The inflammation the same as yesterday, but, the puncture more elevated and of a yellowish brown colour.—2d, The puncture contains a little lymph; other appearances as yesterday.—3d, The Inflammation appears stationary; the puncture has a hardish feel and the child complains of itching in the part.—4th, The Inflammation evidently subsiding; the puncture appears to be getting browner, and the lymph drying into a scab.—5th, Appearances nearly the same as yesterday.—6th, A small scab appears on the puncture; the part around appears of its natural colour, but feels a little hard.—7th, The hardness no longer perceptible, scab still remains.—8th, The

scab is not to be seen this morning ; further visiting unnecessary. This child went to school the whole time, and had not a moment's constitutional affection.

EXPERIMENT THIRD.

WITH matter taken the eighth day from vacciolation, from the subject of the second Experiment, I vacciolated on May 18th, 1801, a child of Mr. GAIN's, of Butcher-street, Portsea. The Cow Pock process was here regular, as in the subjects of the preceding Experiments, and the scabbing process was finished by the end of the fifth week from vacciolation. July 29th, 1804, with variolous matter, the same as used in the preceding Experiments, I variolated this child.—30th, The inflammation was very high, equally as much as I have seen at the end of ten days or a fortnight, in subjects not previously secured by vacciolation or variolation.—31st, The inflammation increases and the punctured part rises.

August 1st, The puncture more elevated; the inflammation the circumference of a sixpence or a little more; the child complains of intolerable itching.—2d, The puncture contains a little citron coloured lymph; inflammatory circle as yesterday.—3d, The child has scratched the puncture, the lymph stains his linen of a yellowish colour.—4th, The inflammation begins to subside; a scab is forming on the puncture, and the itching is now inconsiderable.—5th, The inflammatory circle fades, and the puncture looks brown.—6th, Appearances as yesterday.—7th, The inflammatory circle has disappeared; the puncture however is still elevated above the surface of the skin, and conveys the idea of hardness to the feel.—8th, A small scab and hardness remain.—9th, The scab has dried off.—10th, No appearance of hardness to the feel, and further observation unnecessary. Neither fever, nor any constitutional affection took place.

EXPERIMENT FOURTH.

MAY 27th, 1801, with recent matter taken from Mr. GAIN's child, I vacciolated a child of Mr. HENRY HILL, Junior, farmer and gardener, Fratton, in the Parish of Portsea. The arm rose extremely well; the areola formed about the ninth day; it was near five weeks before the scab fell off, and the succeeding Experiment proves that the system had been rendered insusceptible of small pox by perfect vacciolation.

February 29th, 1804, I variolated a younger child in this family (the parents having some prejudices against vacciolation which I could not remove) the two children were frequently in the same bed together during its progress, and though the variolated child had about thirty pustules, the vacciolated child did not take the disorder; neither was it in the least affected by being always with the other. July 29th, 1804, the vacciolated

child, was variolated with matter taken this day from the child in Unicorn-street.—30th, There was inflammation.—31st, The infected part was risen above the surface of the skin.—August 1st, Professional engagements prevented me seeing my little patient, and on the second instant, I was surpris'd to see the inflammatory circle larger than a sixpence, and the puncture much more risen than on the 31st ultimo.—3d, These appearances seemed at a stand.—4th, The puncture contained lymph; other appearances as yesterday.—5th, The child had scratch'd her arm, indeed the itching was troublesome in this as in the other experiments: there were two or three marks on the linen, occasioned by the scratching and discharge of lymph.—6th, The inflammatory circle disappearing, and a scab formed on the puncture.—7th, Appearances as yesterday.—8th, The inflammation entirely disappeared, a scab only now to be seen.—9th, Further remarks and attendance unnecessary, except to state that there was no constitu-

tional affection whatever, and the child continued its usual habits and diet the whole time.



EXPERIMENT FIFTH.

WITH matter taken from Mr. PURVER's child, June 18th, eight days from vacciolation, and preserved on glass until July 28th, 1801, I vacciolated the infant daughter of the late Captain CANES * of the Royal Navy, who was a warm advocate for the new practice. The progress of the vesicle, as in the preceding experiments was regular and satisfactory, the areola forming as usual; and I had no doubt of the child having undergone perfect vacciolation. About a year afterwards, I subjected her to variolous inoculation; and

* This Gentleman was appointed to the command of his Majesty's sloop l'Utile, and was sent with the news of the late peace to, and with Money to pay the Troops in, the Mediterranean. He arrived at Gibraltar November 5th, 1801, and sailed again from thence the same day for Minorca, but was never after heard of. Besides his public loss as a meritorious Officer, he has left a widow and three children to lament his fate.

while I was performing it, I detected the female servant laughing, which she continuing, I could not help asking her why she did so; she blushed, but said nothing: when she attended me to the street door, however, she begged my pardon for having been so rude, remarking, that she could not tell why she laughed before so many people, but that she would tell me now. She then said, I could not help laughing to see you try to give the child the small pox, because I am sure you cannot succeed; for I have put her to bed several times with children who had it, and one of which died: if I had told you this before my mistress, she certainly would turn me away immediately. The girl was right, I could not get the Small Pox into the system; local inflammation only was produced, with a little lymph in the part punctured, all which appearances were totally gone in twelve days. She was again inoculated with variolous matter August 1st, 1801. Mrs. CANES living twelve miles from hence I did not see the child until

the 5th, when there appeared some inflammation certainly on the decline: a small scab was seen on the puncture, which contained a little lymph, after which, it dried away as I was subsequently informed, for I did not see the child again.

EXPERIMENTS SIXTH AND SEVENTH.

ON the 27th of May, 1801, with recent matter from Mr. GAIN's child, I vacciolated two children and a female servant of Mr. POWELL, then living in Portsea, but now collector of the customs at Chichester in Suffex: they all went through the process of vacciation in a very regular and satisfactory manner, so that I could not think otherwise than that they were perfectly secure from variolous infection: I however, in consequence of a late opinion, wrote to Mr. POWELL requesting him to permit me to try the effect of Small Pox Inoculation on his children and servant: I re-

ceived the subjoined answer, since which I have seen him, and he acquainted me, that the servant had quitted his service sometime since and was gone to London: she had not taken the casual Small Pox when she went away, and he could not tell whether she had ever been inoculated with variolous matter since; neither could he inform me where to write to her.

“DEAR SIR,

“IN answer to your favour of last evening, I have to inform you that soon after the publication of the pamphlet you allude to, I was induced at the request of several professional Gentlemen here to have my two children who had been vaccinated by you, inoculated with Small Pox Matter, and I have great pleasure in communicating to you that the result of the experiment has been so highly satisfactory, that all doubts seem now to be removed from the minds of those persons, who in consequence of that pamphlet were beginning to waver in their opinions respecting the safety and efficacy of Vaccination.

“The children were inoculated by Mr. GUY, a very eminent Surgeon; Dr. SANDEN, and most of the Faculty here, made a point of attending them from time to time, to see if it would have any effect, and they have thus convinced themselves from ocular demonstration, that Vaccination is a certain preventative of the Small Pox: the arm of one of the children was a little inflamed, but in the course of a few

days that went off entirely, and neither of them was in the least indisposed by it.

“ I recollect to have once seen a sermon that was preached against “ The *damnable sin* of Inoculation of the Small Pox,” and it is well known that the greatest opposition was raised by the prejudices of the people against its introduction into this country ; we cannot therefore much wonder at the present opposition to Vaccination, though I have no doubt, however strong some persons prejudices now are, but that *truth* supported by stubborn facts will ultimately be triumphant—the Small Pox entirely extirpated—and Vaccination universally prevail.

I remain, Dear Sir,

Your most obedient servant,

JAMES POWELL.

Chichester, 31st July, 1804.

MR. HILL.

MAY 27th, 1801, with matter immediately taken from Mr. GAIN’S child, I vacciolated a child of Mr. HUNTER’S of the Pay-Office, then residing in Queen-street, Portsea, but now living in London. In consequence of a late opinion, I also wrote to him on the subject in question, his answer is as follows :

Queen’s Square, 7th August, 1804.

MY DEAR SIR,

“ I AM in possession of yours of the 5th, on the subject of which, I may say, I have an interest as well as yourself ; mine of course regarding my children.

Respecting my daughter Susan you may recollect inoculating her with variolous matter about twelve months after Vaccination, without effect: she has mixed with other children as well as my son William, * and has walked any where with the servants without restraint: but, we have never purposely thrown them in the way of infection, being long since perfectly satisfied that Vaccination is a permanent preventive of Small Pox.

I remain, my dear Sir,

Yours truly,

JOHN HUNTER.

MR. HILL.



EXPERIMENTS EIGHTH AND NINTH.

MARCH 7th, 1801, with matter taken from Mr. CAPEL's daughter, I vacciolated a child of Mr. CHARLES GREETHAM, of the Custom-house, Portsmouth. The progress of the vesicle, constitutional affection (uneasiness for about an hour on the sixth day) and formation of areola were all perfect; and I have no hesitation in saying that I believe perfect vacciolation took place. August 7th, 1801, with vacciolous matter taken from Captain CANES's

* WILLIAM was vacciolated in the Autumn of 1802.

daughter, I vacciolated a son of Mr. MARTIN of Portsmouth Dock Yard, living in Saint George's Square; every appearance proved that the matter had pervaded the system; the mark on the child's arm being now characteristic of perfect vacciolation.—August 18th, 1804, I with variolous matter inoculated these two children.—19th, Their arms appeared inflamed a little.—20th, Much more so, with the centre of each rising above the surface of the skin.—21st. Appearances nearly the same. They were this day seen by Dr. KER, Mr. LLOYD, Surgeon of the Worcester Militia, Mr. WAITE, Surgeon, of the 12th Battalion of Reserve, and Mr. ROBINSON, Surgeon of the 3d Royal Lancashire Militia.—22d, A small quantity of lymph appears in each child's puncture; the inflammation nearly the circumference of a sixpence, and both children complained of the part itching.—23d, The Inflammation rather declining on the arm of Mr. Greetham's child; but Mr. Martin's nearly as yesterday. They were seen this day by

Mr. ROBINSON.—24th, The Inflammation in both children certainly on the decline. They were seen this day by Dr. KER and Mr. ROBINSON.—25th, The Inflammation nearly gone; the puncture appears brown, and an eschar is forming on each child's arm: but Mr. Martin's is not so forward as Mr. Greetham's. 26th, Mr. Greetham's child's arm has a scab on the puncture; inflammation entirely gone. Mr. Martin's child's arm has a hardish feel to the touch: a scab is forming, but slowly—27th, Both children as yesterday.—28th, On little Greetham the scab appears quite dry. Mr. Martin's child's arm feels still a little hard.—29th, The scab has fallen off Mr. Greetham's child's arm; but on Mr. Martin's it still continues.—31st, The hardness on Mr. Martin's child's arm gone. Further visits not necessary. There was not in either of these children any constitutional affection whatever. It having been mentioned to me, that a Medical Gentleman of respectability had hinted that, 'there was a possibility of my having used chicken

Pock Matter in these experiments ;' feeling myself much hurt at the idea, I beg leave to remark on this insinuation, if the assertion is true, that Vacciolation will afford a limited security only against Small Pox ; I should, had I used Chicken Pock Matter, have deceived not only my friends, whose children were the subjects of these trials, but also the public, and what is to me of at least equal importance, myself ; and of course should forfeit all future claim to respect as a man, and confidence as a medical practitioner. I will, however, upon my honour state, that the variolous matter used by me, in all the before-mentioned experiments, was taken in presence of the mother of the child from whom it was obtained, and others her neighbours ; and also in presence of the young gentleman who is my apprentice, and who accompanied me to the houses where it was afterwards used, except Mrs. Canes's. she living at too great a distance. I therefore trust the candid reader will give me credit for having conducted these

experiments zealously and faithfully, especially as an opposite conduct would only ensure my own disgrace.

As I had one more experiment to make, I determined not to put it into the power of the most rigid sceptic to raise even the shadow of a doubt of its validity. On enquiring of Mr. COOPER, Surgeon, of Portsea, whether he could accommodate me with some variolous matter, he said he had a patient in the Small Pox in Surry-street, and that matter would be fit to take in three days.

EXPERIMENT TENTH.

AUGUST 31st, 1804, Mr. YATE, Assistant Surgeon of the Worcester Militia made me an accidental morning call, and the three days above mentioned having elapsed, I invited him to call with me on Mr. COOPER. We waited on him together, and all three of us proceeded from his house to Surry-street,

where Mr. Yate, in presence of Mr. Cooper and myself, took matter from a pustule which was well filled. Without quitting the presence of each other, we went to the house of Mr. CASE, No. 12, Britain-street, whose daughter Mr. Yate inoculated in the presence of Mr. Cooper and myself, with the matter just before taken. The child had been vacciolated by me on the 7th of March, 1801, and a strong characteristic mark of perfect vacciolation is now to be seen on her arm.

SEPTEMBER 1st. The puncture appears inflamed and elevated.—2d, Much more so, with considerable itching.—3d, The puncture contains already a little lymph. Mr. Robinson of the 3d Royal Lancashire, and Mr. Cooper saw the child this day.—4th, The puncture is larger, itching, and troublesome.—5th, Appearances not altered since yesterday.—6th, The puncture has a brownish look, the centre of which is forming a scab. Mr. SHEPPARD, Assistant Surgeon of the 3d Royal Lancashire and Mr. Cooper saw the child this day.—7th, The

Inflammation entirely gone; the scab remains. Mr. MUNN, Assistant Surgeon of the Worcester Militia saw the child this day.—8th, I did not see the child, being particularly engaged. 9th, I was also prevented this day visiting my little patient.---10th, The child had rubbed the scab off.—14th, The part appeared dry and further attendance unnecessary; there was no constitutional affection in this child.

IN all the preceding experiments, it is remarkable that very early inflammation took place; and that the punctured part rose above the surface of the skin in twenty-four hours after the insertion of the matter. In Mr. GAIN's child, as early as twelve hours from variolation, inflammation and elevation had both taken place. Itching was more or less troublesome in all the experiments; and much more so than ever I saw in Small Pox inoculation. This early inflammation served to confirm me in my opinion, that their habits were impervious to variolous matter in the way of inoculation, and their resisting the casual Small

Pox, certainly proves that they were rendered infusceptible of it, by the previous vacciolation. Nature by promptly assembling her forces, at the very point where the enemy had assailed her, shewed that she was determined he should not enter her dominions: she therefore wisely carried on the contest at a distance from the capital, and the enemy experienced a defeat at the very place where he had hoped to gain a victory.

The inflammation and punctures in all these experiments were of a darker colour, and had a harder feel, than in common Small Pox inoculation; the hardness was always longer going off than either inflammation or eschar. I have no doubt, but, that, I could with lymph from the punctures, have given the Small Pox to any one susceptible of that disease.

HAVING now completed these experiments, I shall hereafter hold it imprudent to variolate after vacciolation, and I shall decline in future putting my young patients to that

test, except at the particular desire of parents ; for it has been proved by experiments heretofore, as well as lately made, that morbid matter, and particularly the variolous, cannot always be introduced between the cuticle and cutis with impunity. * If vacciolated persons will resist the casual Small Pox, which there can be no doubt of, it is quite sufficient.

I will relate a case which occurred in 1801, which greatly tends to recommend the general practice of vacciolation, and particularly under similar circumstances.

I was called to a poor woman in Havant-street, named Perkins, who had that same day only arrived from Plymouth in one of his Majesty's frigates, on board of which her husband served in the quality of a Quarter-gunner. The poor creature fell in labour in the course of four hours after she took possession of her lodgings, and of course no accoucheur had been provided ; nor indeed any preparation

* See Mr. DUNNING's Answer to Mr. GOLDSON's Cases, as also Mr. RING's.

made for the event; in less than an hour the infant was born. Having retired into another apartment, I was much hurt on re-entering the bed-chamber half an hour after, to find her in tears; upon enquiring what the cause was, she said that she was no sooner out of one trouble than she had fallen into another, for a child was lying dead in the next room, and another extremely ill, both of the Small Pox. She then asked me to inoculate her infant from the surviving child; it had the confluent Small Pox very full indeed, and being the month of July and very warm, I told her I thought she had better not think of it. I then mentioned Cow Pock inoculation, and recommended it as likely to preserve the life of her infant; she consented, and it was immediately vacciolated (with matter taken from Mr. Purver's child the preceding month) before it was an hour old. It went through the progress with the greatest regularity; the eschar did not fall off till more than five weeks from vacciolation, and a beautiful characteris-

tic mark was left on the arm. The mother and child lived in the same house a whole year afterwards, and the latter was insusceptible of Small Pox during that time: upon inquiry, I was lately informed that the mother with her infant went to Plymouth, now more than two years since.

MR. RING insinuates * that in consequence of the Rev. ROWLAND HILL having informed his Congregation at Orange-street Chapel, that Mr. GRIFFIN would probably, on his return, vaccinate the poor of that congregation gratis, “has all at once excited in the Medical Gentlemen here a general opposition to the practice.” Without presuming to say that those gentlemen are more liberal, more humane, more unprejudiced and disinterested than others, † I will take upon me to assert, that I believe, in lieu of throwing obstacles in the way of Mr. Griffin or any other gentleman inclined to do good, they would rather assist in so lau-

* Answer to Mr. GOLDSON's Cases, Page 6

† See his Answer to Mr. GOLDSON's Cases, page 5.

dable an undertaking: but, as Mr. RING says, † that it is sufficient for every gentleman to answer for himself, I shall take this opportunity of saying that I will be happy to assist Mr. GRIFFIN, or any body else, in his or their efforts to benefit the poor; either by vacciolarion or any other means in my power. I can very readily conceive that this gentleman (Mr. RING) has been led by his zeal for vacciolarion to express himself in rather too strong and too general terms:

Optimorum virorum animi irritabiles.

BEFORE I quit the subject of vacciolarion, I must detain my reader while I lament (and I have long lamented it) that there is no public institution in these three towns, for the reception of such of the poor as may be labouring under disease: it is true there is a county hospital, but, being at such a distance, few can avail themselves of that charity when they stand in need. There is also a work-house;

but many families feel great reluctance, probably from a becoming pride, in applying there for assistance when sick; and the work-house is certainly not to be considered as an hospital or infirmary. I am convinced, if a public Dispensatory or Infirmary were established here, it would be attended with much benefit: firstly, in being an asylum for such of the poor as may be the prey of disease. Secondly, persons meeting with accidents may there be received. Thirdly, persons also apparently drowned may be taken there, where means may be used under the immediate eye of Medical Gentlemen, which would give them a much better chance of being restored to life, than if left to the uninformed. Out patients may also attend for cure of such complaints as may not require confinement, and may receive benefit, & ultimately be cured from such an institution, which perhaps from indigence, they otherwise may never obtain. Vaccination may also be made more extensively useful through the medium of such an institu-

tion, where it may be performed on the poor at regular stated times. In difficult cases all the Members of the Medical Profession might consult together, and, from their joint professional abilities, it is likely that many a valuable life might be saved.

I throw out these hints merely as such, for those who are much better qualified than I am for attempting to set such an institution on foot; and who may by their influence and sanction bring such a measure to perfection.

Reverting to the case of Mr. Perkins's child in Hayant-street, it will be seen that Vaccination, or Cow Pock inoculation, cannot be performed too soon; I would therefore recommend all those parents who wish to preserve their offspring from the ravages of the Small Pox, to adopt it as early as possible,

Left, when pale death demands us for his own,
When iron slumbers press our bodies down;
When our departing souls disperse in air,
No son remain, no daughter's tender care,
To pay the fun'ral rites the loss to mourn,
And pour their tears on our neglected urn.

Pædotrophia, Page 8.

To the Medical Gentlemen who did me the honour to visit some of the subjects of the before-mentioned Experiments, I feel myself much indebted; and the Parents who so cheerfully submitted their children to such test, I beg will accept my best thanks.



